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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/596,060

05/26/2006

Sandrine Dulac

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EXAMINER

SAVAGE, JASON L

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

03/19/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/596,060	Applicant(s) DULAC ET AL.	
	Examiner JASON L. SAVAGE	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 18-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2-12-09 has been entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6, 11-14 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Ueda (JP 2000-303132)

Ueda teaches an aluminum core material comprising Y between 0.05-1.0% and other elements such as Mn, Ti, Zr, V, Ni, Co and other elements within the ranges claimed with the balance being Al which would be in an amount well over 80% (abs). Ueda further teaches that a core alloy of 3003 aluminum was used and that erosion control elements were added individually and in combination to measure the erosion of the core (par [0023-0027]). 3003 aluminum has a nominal composition comprising Cu between 0.05-0.2%, Si 0.6%, Fe 0.7%, Mn 1.0-1.5% and Zn 0.10% which are all

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elements which may be employed in the claimed aluminum alloy and all fall within the claimed ranges for each element. Furthermore, Ueda's Sample No. 9, 10 and 11 exemplify embodiments wherein the erosion control element is Y in amounts of 0.04, 0.12 and 0.58 respectively which would meet the claimed alloy composition of the present invention.

Ueda further recites that the core metal is coated with a brazing aluminum alloy such as Al-Si with Si being between 6-13.5% by weight (abs).

Regarding claims 2 and 11-12, Ueda recites the silicon content in the brazing alloy overlaps and anticipates the range claimed.

Regarding claims 3 and 13, Ueda teaches the brazing alloy may contain an element such as Be and thus would meet the claim limitation of having an element for modifying the surface tension of the alloy.

Regarding claims 4 and 14, Ueda teaches the brazing alloy may be clad by rolling with the basic aluminum core (par[0023]).

Regarding claims 6-7 and 11 Ueda teaches the yttrium content which overlaps and anticipates the claims ranged between 0.05-0.5 (abs.).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 8-10 and 15-16. re rejected under 35 U.S.C. 103(a) as being unpatentable over by Ueda (JP 200303132) in view of the admitted prior art

Regarding claims 5, 8-10 and 15-16, Ueda is silent to the braze part comprising particles which are possibly coated by a polymer. However, as recited by Applicant in paragraph [19] of the instant Application, it would have been within the purview of one of ordinary skill in the art to have added the brazing alloy in the form of particles which may be coated with a resin binder.

Claim Rejections - 35 USC § 103

Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Ueda (JP 200303132) in view of the admitted prior art regarding claims 5, 8-10 and 15-16 above, further in view of Baba et al. (JP 58-040495).

The prior art teaches what is set forth above but is silent that Bi may be added to the core alloy of Al. Baba teaches that that an aluminum core material comprising Bi between 0.005-0.3 and other elements such as Mn and Be which provides a heat exchanger component having improved corrosion resistance (abs.). The Bi content is taught to be between 0.005-0.3% which overlaps the range claimed by Applicant.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have added other known additives such as Bi as disclosed by Baba (JP 2000-303132) to the Al-Y core of Ueda (US 200303131) with a reasonable expectation of success of providing a component having enhanced corrosion resistance.

Response to Arguments

Applicant's arguments filed 2-12-09 have been fully considered but they are not persuasive.

Applicant argues that claims 1-4, 6, 11-14 and 17 cannot be anticipated by the prior art of Ueda (JP 2000-303132) because it requires that elements of Ca, Li, Sr and Sc be included in the core alloy in amounts that individually and/or combined would fall outside of the claimed range of "other elements" being present in less than 0.05% each and in total 0.15%.

While a portion of Ueda does recite what Applicant describes, Ueda further teaches that a core alloy of 3003 aluminum was used and that erosion control elements were added individually and in combination to measure the erosion of the core (par [0023-0027]). 3003 aluminum has a nominal composition comprising Cu between 0.05-0.2%, Si 0.6%, Fe 0.7%, Mn 1.0-1.5% and Zn 0.10% which are all elements which may be employed in the claimed aluminum alloy and all fall within the claimed ranges for each element. Furthermore, Ueda's Sample No. 9, 10 and 11 exemplify embodiments wherein the erosion control element is Y in amounts of 0.04, 0.12 and 0.58 respectively which would meet the claimed alloy composition of the present invention. As such, Ueda is still considered to anticipate the recited claims.

Regarding claims 5, 8-10, 15-16 and 18-20, Applicant reiterates the same argument above that Ueda does not teach or suggest the claimed core alloy. However, as set forth above, Ueda exemplifies embodiments which meet the claimed compositions in claims 1, 6 and 11. As such, Applicant's arguments are not persuasive.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON L. SAVAGE whose telephone number is (571)272-1542. The examiner can normally be reached on M-F 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on 571-272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason Savage/
Examiner
3-16-09

/JENNIFER MCNEIL/
Supervisory Patent Examiner, Art Unit 1794